

REMARKS

Applicant thanks the Examiner for acknowledging Applicant's foreign priority claim and receipt of the certified priority document.

Claims 9, 15, 21, 27 and 33-36 have been amended to narrow the range of the claimed bismuth and silver concentrations. Support for the amended bismuth range can be found for example at p. 10, line 21 and p. 18, lines 15-19. Support for the amended silver range can be found for example at p. 18, lines 15-19 and p. 20, lines 14, 22 and 24. Claims 37-40 have been canceled. Thus no new matter has been added.

Upon entry of this Amendment, which is respectfully requested, Claims 9-13 and 15-32 will be all the claims pending in the present application.

Response to Claim Rejection Under 35 U.S.C. § 102/103

Claims 9-13, 15-20, 33-34 and 37-38 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 6,109,506 to Blair et al. Applicant respectfully traverses the rejection.

Regarding the § 102 aspect of the rejection, Blair fails to disclose the presently claimed subject matter with sufficiently specificity. Blair discloses a solder composition comprising 1-30 wt% Zn, 0-1 wt% Bi, 0-1 wt% Ag and the balance being Sn.

In contrast, the present claims recite a solder composition comprising 7-10 wt% Zn (inclusive), 1-6 wt% Bi (inclusive), Ag at a wt% of X, wherein $0.025 \leq X < 0.1$, and the remainder of Sn. While Blair's ranges may overlap or touch the presently claimed ranges, Blair's ranges are so broad that they fail to disclose the claimed ranges with sufficient specificity to constitute an anticipation under § 102. Thus, Applicant respectfully submits that Blair fails to anticipate the present claims.

Regarding the §103 aspect of the rejection, as discussed above, one of ordinary skill would not clearly envisage the presently claimed composition in view of the broad ranges disclosed in Blair. Further, one of ordinary skill would not be motivated to select the present composition.

Even if a *prima facie* case of obviousness could be established, which it can not, Takuo Funaya's Declaration, submitted by Applicant on October 26, 2007, demonstrates that the presently claimed composition is critical to achieve the properties sought by Applicant. The data demonstrates unexpectedly superior properties, including tensile elongation, tensile strength and Vickers Hardness. The Examiner will note that the present claims, as amended, are commensurate in scope with Takuo Funaya's Declaration, thus resolving the Examiner's concern in this regard.

Thus, Applicant respectfully submits that Blair fails to anticipate or render obvious the present claims. Accordingly, withdrawal of the rejection is respectfully requested.

Response to Claim Rejection Under 35 U.S.C. § 103

Claims 9-13 and 15-40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2006/0071051 to Shoji et al. Applicant respectfully traverses.

Shoji does not render obvious the presently claimed invention. The presently claimed invention exhibits unexpectedly superior results over the prior art reference, as demonstrated by Takuo Funaya's Declaration, discussed above. As noted, the data demonstrates unexpectedly superior properties, including tensile elongation, tensile strength and Vickers Hardness.

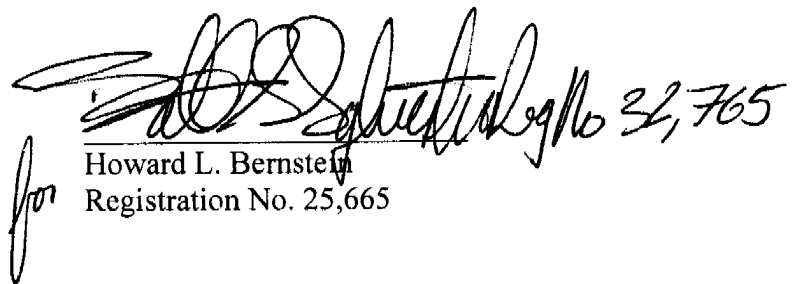
Further, Shoji discloses that Ag is an "unavoidable impurity" of solder. Shoji defines an unavoidable impurity as an element that is inevitably intermingled during the production of

solder metal. According to Shoji, the amount of the impurity is generally 1 mass% or less. Shoji further defines an unavoidable impurity as an element that does not greatly affect the characteristics of solder metal even when intentionally added. *See*, paragraph [0034]. Thus, one skilled in the art would not be motivated to include the presently recited amount of Ag in the solder composition based on Shoji's disclosure. In this regard, one would not have optimized the Ag amount in Shoji since Shoji discloses Ag as an unavoidable impurity and not a result-effective variable. Accordingly, withdrawal of the rejection is requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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